AMENDMENTS TO THE CLAIMS

Please cancel claims 149, 154-156, and 162-164 without prejudice or disclaimer to the subject matter disclosed therein, and enter new claims 175-178. Following entry of this amendment claims 1-143, 149, 154-156, and 162-164 will be cancelled and claims 144-148, 150-153, 157-161, and 165-178 will be pending.

1-143. (cancelled)

144. (currently amended) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: fragments ~~from about 15 to~~ of about 250 nucleotides in length of SEQ ID NO: 34.

145. (currently amended) A substantially purified nucleic acid comprising the complement of a nucleotide sequence selected from the group consisting of: fragments of ~~from about 15 to~~ about 250 nucleotides in length of SEQ ID NO: 34.

146. (currently amended) A mammalian cell having an introduced nucleic acid comprising a nucleotide sequence selected from the group consisting of: a fragment of SEQ ID NO: 34 and a fragment of a complement of SEQ ID NO: 34, wherein said fragment is from about 15 to about 250 nucleotides in length.

147. (previously presented) The cell of claim 146, wherein said nucleic acid is double stranded.

148. (currently amended) ~~The cell of claim 146,~~ A mammalian cell having an introduced nucleic acid comprising a nucleotide sequence selected from the group consisting of: a fragment of SEQ ID NO: 34 and a fragment of a complement of SEQ ID NO: 34, wherein said fragment is from about 15 to about 250 nucleotides in length, and wherein said introduced nucleic acid is present in a vector.

149. (cancelled)

150. (currently amended) ~~The cell of claim 148~~, A mammalian cell having an introduced nucleic acid comprising a nucleotide sequence selected from the group consisting of: a fragment of SEQ ID NO: 34 and a fragment of a complement of SEQ ID NO: 34, wherein said fragment is from about 15 to about 250 nucleotides in length, and wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.

151. (currently amended) A vector having a nucleic acid comprising a nucleotide sequence selected from the group consisting of: ~~a fragment~~ fragments of SEQ ID NO: 34 and ~~a fragment~~ fragments of ~~a~~ the complement of SEQ ID NO: 34, wherein said fragment is from about 15 to about 250 nucleotides in length and capable of detecting a polymorphism at the TIGRmt1 site by genetic bit analysis.

152. (previously presented) The vector of claim 151, wherein said nucleic acid is double stranded.

153. (previously presented) The vector of claim 151, wherein said vector is a plasmid vector.

154. (cancelled)

155. (cancelled)

156. (cancelled)

157. (currently amended) A mammalian cell having an introduced nucleic acid comprising a nucleotide sequence selected from the group consisting of: a fragment of nucleotides 1 through 5271 of SEQ ID NO: 3 and a complement of a fragment of nucleotides 1 through 5271 of SEQ ID NO: 3, wherein said fragment is from about 15 to about 250 nucleotides in length.

158. (previously presented) The cell of claim 157, wherein, said nucleic acid is double stranded.

159. (previously presented) The cell of claim 157, wherein said introduced nucleic acid is present in a vector.

160. (previously presented) The cell of claim 159, wherein said vector is a plasmid vector.

161. (previously presented) The cell of claim 159, wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.

162. (cancelled)

163. (cancelled)

164. (cancelled)

165. (currently amended) ~~The vector of claim 162,~~ A vector having a nucleic acid comprising a nucleotide sequence selected from the group consisting of: a fragment of nucleotides 1 through 5271 of SEQ ID NO: 3 and a complement of a fragment of nucleotides 1 through 5271 of SEQ ID NO: 3, wherein said fragment is from about 15 to about 250 nucleotides in length wherein said nucleic acid further comprises a TIGR protein coding sequence.

166. (previously presented) A substantially purified nucleic acid comprising the nucleotide sequence of SEQ ID NO: 34.

167. (previously presented) A substantially purified nucleic acid comprising the complement of the nucleotide sequence of SEQ ID NO: 34.

168. (currently amended) A mammalian cell having an introduced nucleic acid, wherein said introduced nucleic acid comprises a nucleotide sequence selected from the group consisting of: SEQ ID NO: 34 and its complement.

169. (previously presented) The cell of claim 168, wherein said introduced nucleic acid is present in a vector.

170. (previously presented) The cell of claim 169, wherein said vector is a plasmid vector.

171. (previously presented) The cell of claim 169, wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.

172. (previously presented) A vector comprising a nucleic acid, wherein said nucleic acid comprises a nucleotide sequence selected from the group consisting of: SEQ ID NO: 34 and its complement.

173. (previously presented) The vector of claim 172, wherein said vector is a plasmid vector.

174. (previously presented) The vector of claim 172, wherein said nucleic acid further comprises a TIGR protein coding sequence.

175. (new) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: fragments from about 15 to about 250 nucleotides in length of SEQ ID NO: 34 capable of detecting a polymorphism at the TIGRmt1 site by genetic bit analysis.

176. (new) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: fragments from about 15 to about 250 nucleotides in length of the complement of SEQ ID NO: 34 capable of detecting a polymorphism at the TIGRmt1 site by genetic bit analysis.

177. (new) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: fragments from about 15 to about 30 nucleotides in length of SEQ ID NO: 34 capable of detecting a polymorphism at the TIGRmt1, TIGRmt2, TIGRmt4, TIGRmt5, TIGRmt11, or TIGRsv1 sites by genetic bit analysis.

178. (new) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: fragments from about 15 to about 30 nucleotides in length of the complement of SEQ ID NO: 34 capable of detecting a polymorphism at the TIGRmt1, TIGRmt2, TIGRmt4, TIGRmt5, TIGRmt11, or TIGRsv1 sites by genetic bit analysis.